

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-23 (Canceled).

Claim 24 (New): A connector for a flat multilayer element comprising:

a first rigid glazing pane provided with one or more electrical functional elements;

a second rigid glazing pane joined flat to that side of the first rigid glazing pane that is provided with the one or more functional elements, the second rigid pane having at least one cutout for making an electrical connection to the one or more functional elements; and

a liner fastened in the cutout by a projection, an edge of the projection lying in a plane between the first and second rigid panes and/or catches, via a rear, on an undercut of the cutout, and

wherein the liner serves as a counterbearing surface for fastening at least one connection piece electrically connected to the one or more functional elements.

Claim 25 (New): The connector as claimed in claim 24, wherein the cutout is provided in the first rigid pane having the one or more functional elements or in the second rigid pane.

Claim 26 (New): The connector as claimed in claim 24, wherein at least two regions of the one or more functional elements are of different polarity and are brought into a region of the cutout, and wherein each of the at least two regions is brought into electrical contact with a connection piece fastened to the liner.

Claim 27 (New): The connector as claimed in claim 26, wherein each connection piece comprises at least one spring contact brought into electrical contact with a respective of the one or more functional elements.

Claim 28 (New): The connector as claimed in claim 26, wherein a flat electrode of the one or more functional elements, electrically connected to each connection piece, is provided in a region of each connection piece.

Claim 29 (New): The connector as claimed in claim 24, wherein the liner is configured in a form of a bush and is inserted into the cutout, its projection catching, via the rear, on the edge of the cutout in a plane of an interlayer.

Claim 30 (New): The connector as claimed in claim 24, wherein the projection of the liner is provided with at least one contact configured to make an electrical connection between at least one connection piece and at least one of the one or more functional elements, this at least one functional element being associated with the second rigid pane in the cutout of which the liner is placed.

Claim 31 (New): The connector as claimed in claim 30, wherein the at least one contact is produced as a connection bridge that has, in an internal space of the liner in a form of a bush, a contact surface for a connection piece and, on one face of the projection, a contact surface for connection to a respective of the one or more functional elements.

Claim 32 (New): The connector as claimed in claim 24, wherein the liner comprises a peg or an undercut-engaging peg that is fastened in the cutout by a screw.

Claim 33 (New): The connector as claimed in claim 32, wherein the screw is configured as a bush screw with an external thread, its internal space forming a housing for other components of the connector.

Claim 34 (New): The connector as claimed in claim 24, further comprising means for fastening or suspending a flat of the one or more functional elements in a subjacent structure or a wall of a building.

Claim 35 (New): The connector as claimed in claim 24, wherein a flat element is provided as the one or more functional elements with an electrically conductive coating of a heating layer.

Claim 36 (New): The connector as claimed in claim 35, further comprising a temperature probe for detecting an actual temperature of the heating layer.

Claim 37 (New): The connector as claimed in claim 36, further comprising a switching element configured to be controlled by the temperature probe, to interrupt or reduce heating current should a predetermined temperature threshold be exceeded.

Claim 38 (New): The connector as claimed in claim 35, further comprising a manually actuated adjustment device for introducing a temperature threshold for the heating layer.

Claim 39 (New): The connector as claimed in claim 35, as a receiver configured to receive control signals transmitted without any contact and as a switching device configured to be controlled by the receiver, for remotely connecting and disconnecting the heating layer.

Claim 40 (New): The connector as claimed in claim 24, further comprising at least one display element or a light signal displaying a state of operation of the one or more functional elements.

Claim 41 (New): The connector as claimed in claim 24, further comprising a connection box in a form of a casing acting as a cover with respect to external environment.

Claim 42 (New): A flat element with electrical functional elements incorporated between two rigid plates and at least one connector as claimed in claim 24.

Claim 43 (New): The flat element as claimed in claim 42, wherein one rigid plate is a pane coated with an electrically conductive coating.

Claim 44 (New): The flat element as claimed in claim 42, wherein an optical mask is provided at least in a region of the cutout or of the connector on that side not facing the cutout.

Claim 45 (New): The flat element as claimed in claim 42, wherein at least one electrode configured to make electrical contact between the electrical functional element and the connector is placed on one of the two rigid panes in a region of the connector.

Claim 46 (New): The flat element as claimed in claim 42, including at least one display element configured to display an operating state of the one or more functional elements.